

Title (en)  
SAFETY GLASS LAMINATES

Publication  
**EP 0131523 B1 19880113 (FR)**

Application  
**EP 84401464 A 19840710**

Priority  
FR 8311507 A 19830711

Abstract (en)  
[origin: EP0131523A2] 1. A laminated pane comprising only a glass sheet and a layer of transparent plastics material, characterised in that the layer of transparent plastics material has properties of absorption of energy and interior protection defined by a scratch resistance greater than 20 g measured with the Erichsen type 413 apparatus and an abrasion resistance according to European Standard R43 such that the haze difference is less than 4% and at a thickness of about 0.5 mm a flow stress  $\sigma_y$  at -20 degrees C not exceeding 3 daN/mm<sup>2</sup>, a rupture stress  $\sigma_R$  at +20 degrees C of at least 2 daN/mm<sup>2</sup>, a lengthening at rupture  $\epsilon_R$  at +20 degrees C from 250% to 500%, and a tear resistance  $R_a$  at +20 degrees C of at least 9 daN/mm<sup>2</sup>, and in that the layer of plastics material is formed essentially of a polyurethane obtained by continuous reactive casting on a flat horizontal support of a reaction mixture of an isocyanate component and a polyol component, the isocyanate component comprising at least one aliphatic or cycloaliphatic di-isocyanate or a di-isocyanate prepolymer, this component having a viscosity measured at +40 degrees C less than about 5 Pas, the isocyanate component containing urea functions, the content of urea being up to 10% of the total weight of isocyanate component, the urea content preferably being from 5 to 7%, and the polyol component comprising at least one long difunctional polyol of molecular weight from 500 to 4000 and at least one short polyol as a chain lengthening agent, the ratio of isocyanate group equivalents to hydroxyl group equivalents is about 1, and the proportions between the different polyols are selected so that the number of hydroxyl group equivalents due to the short diol represents from 20 to 70% of the total hydroxyl groups.

IPC 1-7  
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IPC 8 full level  
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CPC (source: EP KR)  
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